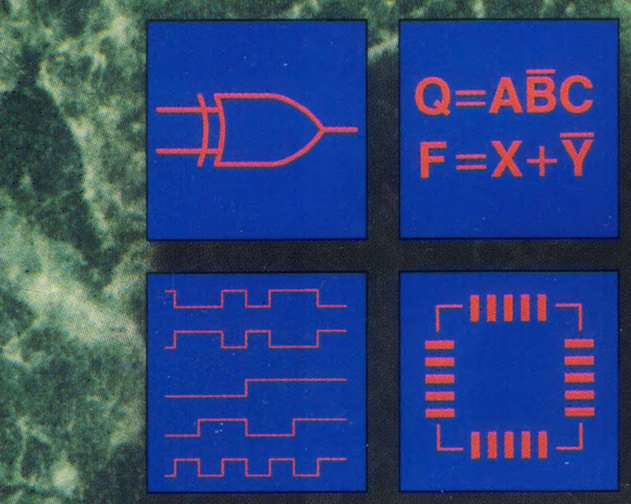
## The Complete Electronic Design Solution.

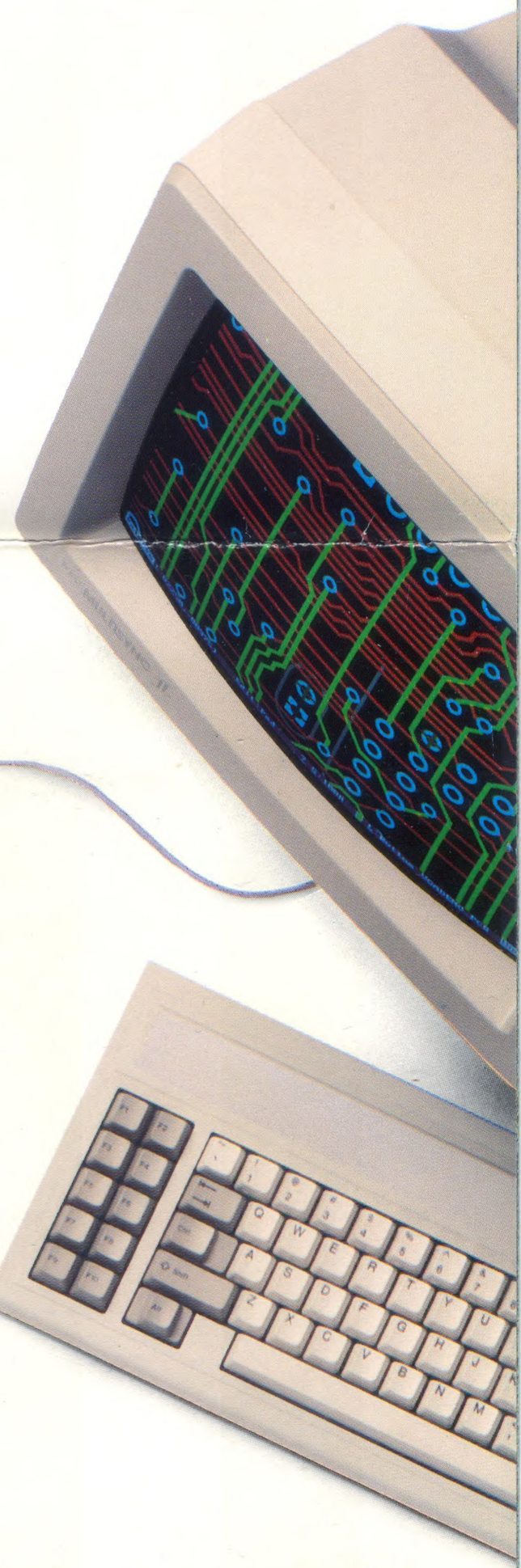
# Tango®

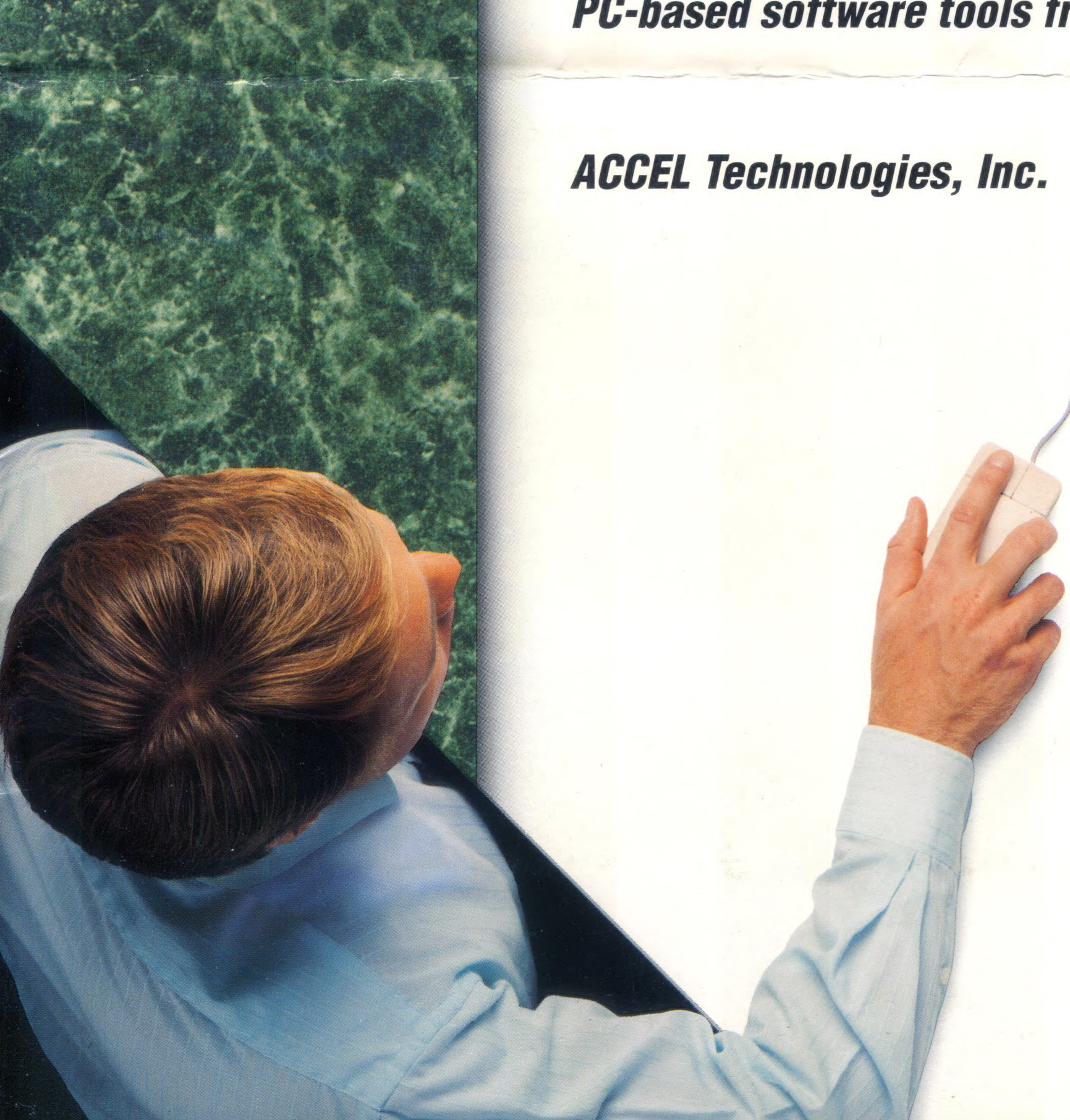
### Powerful, yet affordable

### PC-based software tools from

### ACCEL Technologies, Inc.





# ACCEL. Building products and relationships that last.

*We develop and market Tango design tools to meet the present and future needs of engineering professionals worldwide. Our approach in developing all Tango products is to provide affordable tools of high quality and performance, which will also be the easiest to use. Toward this end, we developed the ACCEL Productivity Interface (API).™ We believe it to be the friendliest user interface available on any engineering design system, at any price.*

*All Tango programs exhibit logical flow and versatility, provide rich functionality and are thoroughly tested and well documented. Every program is then given our money-back guarantee and priced to offer you great value.*

*As we strive to build long-term relationships with our customers, service-after-sale becomes an important part of every Tango product. Tango users always get the best service, including affordable product updates, responsive technical support and our on-line BBS.*

*ACCEL's success can only be measured by the quality of the products and services we offer. Our goal is to maintain the highest reputation for excellence in the industry, built as a result of paying attention to our products and to our customers.*

Walt

*Walt Foley*
*President and Founder, ACCEL Technologies, Inc.*

# Tango-Schematic.™ It simply works better.

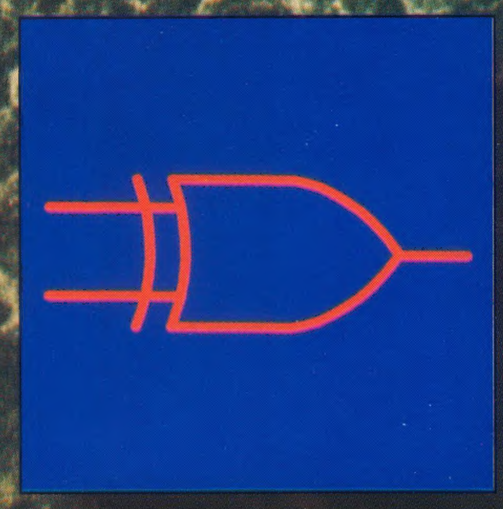
*You haven't got any time to spare. So, make sure you're using the most productive design tool for schematic entry. Once you've seen Tango-Schematic, we bet you'll agree it's the very best PC-based, schematic capture package you can buy.*

*Tango-Schematic is the front end of our complete family of circuit board design software. Users execute all common functions in the same way with API, Tango's friendly interface.*

*Tango-Schematic's extensive device libraries are provided by SEDCO (specialists in creating electronic design libraries), and contain over 10,000 commercial, DeMorgan and ANSI/IEEE symbols, which are verified for accuracy. Tango takes an integrated approach to design, with sheet and component creation, post processing and hard copy generation — all executed from a single program. Post processing includes: forward and back annotation, design rule checking and sheet cleanup. Tango, EDIF 2.0, PSpice,™ P-CAD™ and other net list formats are supported.*

*Other examples of Tango-Schematic's versatility and functionality include: support of homogeneous and heterogeneous components; unlimited zoom levels and* ***autopanning****; options to drag wires with components, display hidden pins and use a unique* ***snap-to-pin*** *feature for guaranteed wire-to-component connections; and ANSI A-E and ISO A4-A0 size drawings with both auto scaling and the ability to change sheet sizes* ***without starting over****.*

*With Tango-Schematic, creating even complex schematics can be simple.*



# Tango-PLD.™ The price/performance leader.

$$Q=A\bar{B}C$$
$$F=X+\bar{Y}$$

*Tango-PLD is an affordable universal tool for designing and simulating programmable logic devices (PLDs). From its innovative approach to PLD design to its blazing compilation speed, Tango-PLD has been engineered to help you produce high-quality designs in less time.*

*Unlike other programs, Tango-PLD allows you to define and test your logic* ***without*** *first having to specify a device. When you are pleased with the design, select a target device and Tango-PLD will produce an industry-standard JEDEC file for programming the PLD. Tango-PLD supports many of today's popular devices, including PALs, PLAs, GALs, PEELs and EPLDs.*

*Tango-PLD combines a design compiler, the ESPRESSO logic minimizer, a functional simulator and a fusemap generator all into one, easy-to-use program. The Tango-PLD program produces comprehensive design documentation files, formatted source listing files and unique cross-reference files used for source-level debugging. Tango-PLD features the powerful Tango Design Language — a "C-like" hardware description language which supports design, test, device selection and device modeling. Tango-PLD also accepts schematics from both Tango-Shematic and OrCAD/SDT.™ Adding the optional BRIEF™ text editor provides Tango-PLD with a friendly and powerful debugging interface.*

*In the Tango tradition, Tango-PLD is clearly an exceptional value and a smart investment.*

# Susie.™ The interactive logic simulator.

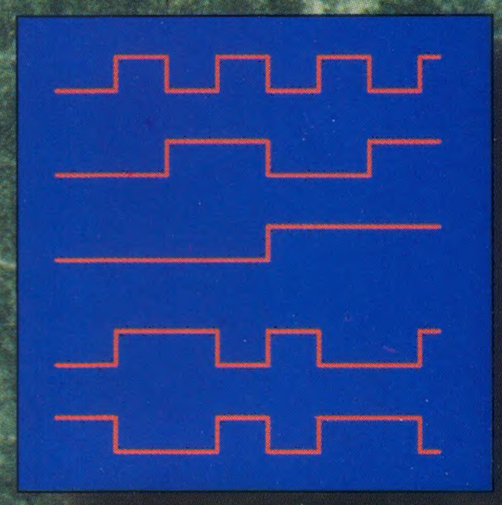
*Fully compatible with Tango, Susie (Standard Universal Simulator for Improved Engineering) brings powerful logic simulation to the desktop engineering design station. Susie's timing-driven, functional simulation allows you to bypass tedious hardware breadboarding saving significant design time.*

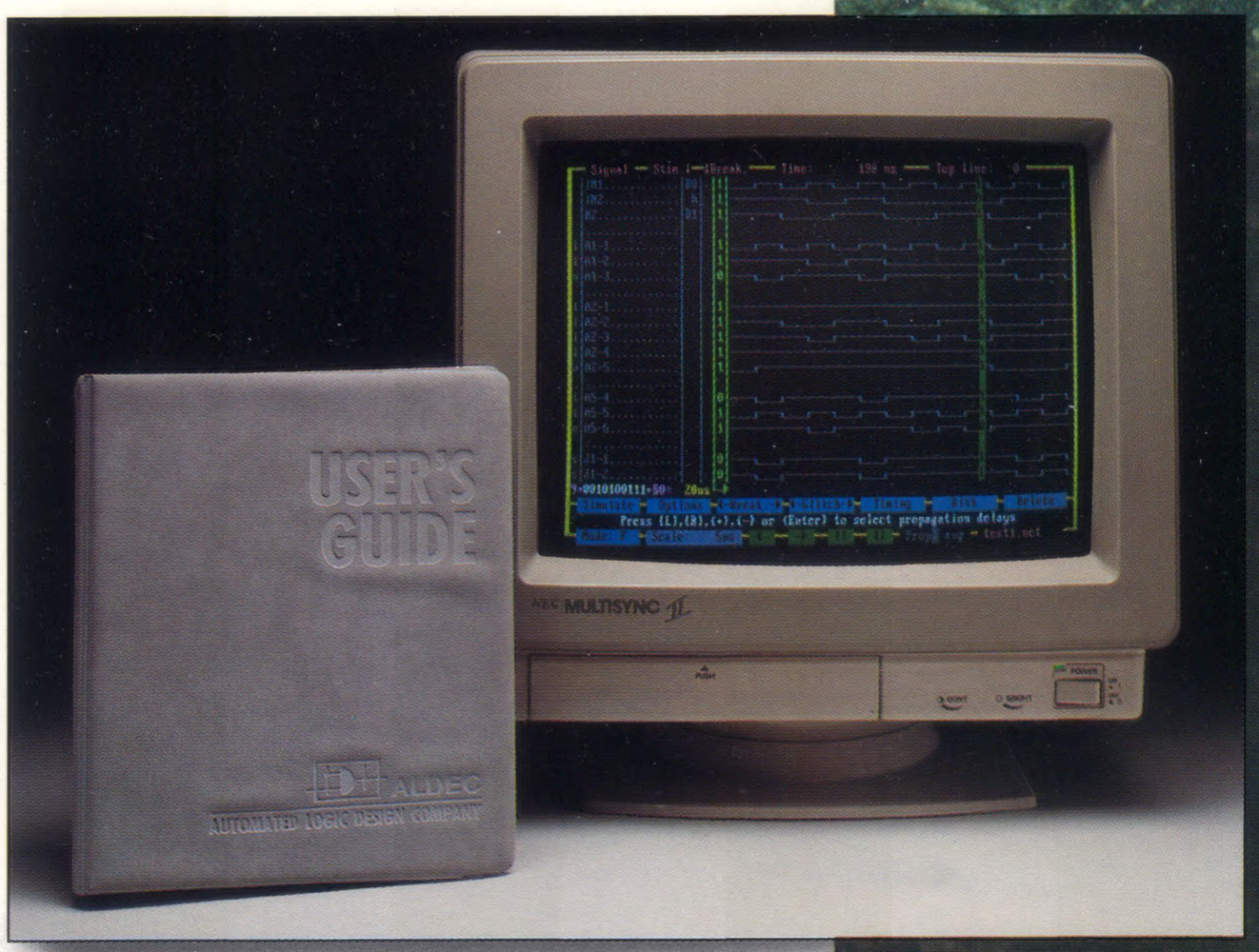
*Susie is unique by comparison to its PC-based competitors, offering an entirely interactive simulation. Users get immediate, split-second simulation via its incremental compiler which allows modification of test vectors, addition of signal lines or changing of jumper settings. No recompiling of test vectors prior to simulation is required.*

*Susie includes: easy-to-use, menu-driven operation; a full-screen graphical test vector editor; waveform graphic output similar to logic analyzers; and highlighting of potential problem timing glitches.*

*Available optionally, Tim™ (Timing Interactive Module) further evaluates design glitches. It provides high-resolution timing simulation down to ten picoseconds and allows you to change propagation delays or even chip technology.*

*When critical designs demand logic simulation, Susie plus Tim is the most thorough package available on a PC.*





# Powerful tools for PCB layout.

*Tango gives you a choice in printed circuit board design. There's Tango-PCB PLUS,™ our advanced PCB layout tool for the designer with complex design requirements and our entry-level Tango-PCB,™ a comprehensive, yet less-expensive program for less demanding designs.*

*Both versions feature the ACCEL Productivity Interface, where you're never more than two mouse clicks away from any command. Tango's pop-up menus, dialog boxes, on-line help and unique "hot spots" and "speed palette," all combine to make Tango quick to learn and easy to use.*

*Tango-PCB and Tango-PCB PLUS both feature: user-defined sizes of tracks, pads, arcs, fills, text and grids; versatile moving, mirroring, rotating and releasing of components; full support for net lists from popular schematic programs; auto-via placement; comprehensive block operations; design verification tools; SMT support; and crisp output to a wide array of printers, plotters and photoplotters.*

*Tango-PCB PLUS increases design productivity by adding: automated component placement; an integrated design rule check; a photoplot file viewer; force vectors for component placement assistance; DXF and PostScript™ output file support; and EMS (expanded memory) support.*

*ACCEL also offers options such as textbooks on PCB design, added SMD support with the* ***SMT Land Pattern Handbook*** *and optional thermal and reliability analysis software.*

# Fast, efficient autorouters speed board design.

*You have three powerful Tango autorouting options all incorporating the easy-to-use AP Interface. There's ACCEL's high-performance Tango-Route;™ Tango-Route PLUS,™ the multi-grid autorouter for sophisticated board designs; and Tango-Route PRO,™ an advanced, high-performance autorouter, which iterates to 100% completion.*

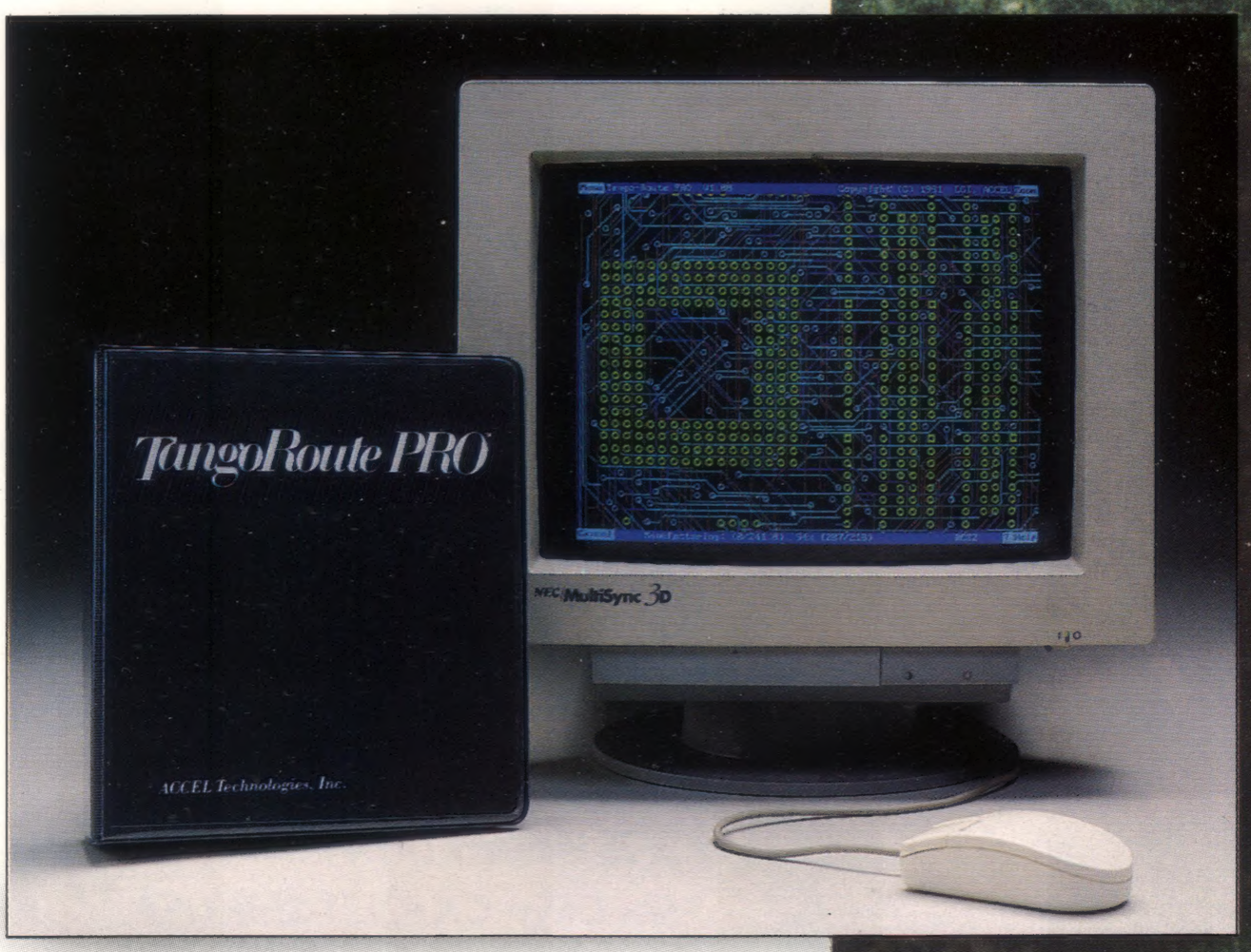
*Tango-Route and Tango-Route PLUS both include: design rule checks; pre-routes and keep-outs; off-grid routing; 90° and 45° routing; SMT support; multi-pass and maze routing; via minimization; and trace cleanup.*

*Tango-Route routes two signal layers plus power and ground planes on a 25-mil grid. Tango-Route PLUS gives you: ten signal layers plus power and ground planes; up to three traces between ICs; fine-line capability; and EMS.*

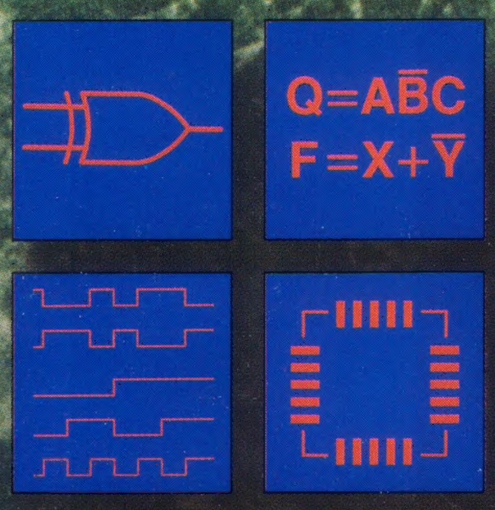
*Complex board designs can be rapidly routed to high-completion using Tango-Route PRO with its unique algorithm that removes and re-places traces.*

*Tango-Route PRO also features manufacturability improvement algorithms; automatic "expert system" routing options for professional results; non-uniform and off-grid routing for placement flexibility; advanced SMT support; and more. Tango-Route PRO is available for 386- and 486-based computers.*

*From simple prototypes to complex multi-layer PCBs, Tango's layout and autoroute options provide the combination you need for fast, high-quality board design.*



# A commitment to unrivaled service and support.




## Tango extras make the difference.

*Your investment in Tango software includes:* ***regular software updates*** *available for reasonable fees;* ***clear, concise documentation*** *furnished both on-line and in illustrated manuals;* ***free directories*** *of service bureaus who plot and fabricate boards, and independent consultants who design with Tango software;* ***responsive technical support*** *provided via phone or FAX by experienced applications personnel; access to our 24-hour* ***bulletin board service****; and our* ***quarterly newsletter****,* TangoToday.

## Functional software evaluation packages.

*Detailed specifications and software evaluation packages with full-function, interactive capability are available for all programs sold by ACCEL. Each evaluation package comes complete with tutorial documentation and is available to qualified designers upon request.*

*Like Tango products, you'll find our customer service department user friendly as well. We invite you to give us a call for additional information or to order any of our free evaluation packages. We promise to be well informed, courteous and helpful.*

**Tango®**

***Helping good ideas become great products.***


***Call, fax or write for free evaluation packages and complete specifications***

***800 488-0680*** *(U.S. only)*

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*San Diego, CA 92121-2986 USA*
*Service & Support 619 554-1000*
*FAX 619 554-1019*

*System requirements: All software described in this brochure operates on IBM™-compatible personal computers. Complete system requirements are available on specification sheets for each program. Product specifications and pricing subject to change without notice.*

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